

CLAIMS

What is claimed is:

1. A configurable SATPS receiver adapted to be utilized in at least one of a plurality of particular SATPS receiver applications, the configurable SATPS receiver including a plurality of input paths and a plurality of possible outputs, comprising:

means for generating selected ones of the plurality of possible outputs,

wherein the selected ones of the plurality of possible outputs comprise outputs that are utilized by at least one particular SATPS receiver application.

2. The configurable SATPS receiver of claim 1, further comprising a plurality of input paths responsive to a plurality of possible RF inputs, wherein the means for generating comprises:

a radio frequency (RF) unit responsive to at least one RF input, wherein the radio frequency unit generates a plurality of intermediate frequency (IF) outputs based on the RF inputs; and

a baseband unit responsive to selected ones of the intermediate frequency (IF) outputs.

3. The configurable SATPS receiver of claim 2, wherein the baseband unit generates selected ones of the plurality of possible outputs utilized by the particular SATPS receiver application.

4. The configurable SATPS receiver of claim 3, wherein baseband unit generates selected ones of the plurality of possible outputs based on the plurality of inputs.

5. The configurable SATPS receiver of claim 2, wherein the baseband unit further comprises input paths for signals other than the RF inputs from the RF unit, and wherein at least one of the plurality of possible outputs is selected from the plurality of possible outputs and other inputs, based in part on use of signals other than the RF inputs.
6. The configurable SATPS receiver of claim 5, wherein the signals comprise a plurality of assistance data-type inputs.
7. The configurable SATPS receiver of claim 6, wherein the assistance data-type inputs are selected from at least one of a group comprising: a coarse position input, a navigation data input, a doppler input, a time input, a frequency reference input, a universal time code (UTC) correction input, a ionospheric correction input, an ephemeris input, an almanac input, and/or a satellite ID input.
8. The configurable SATPS receiver of claim 7, wherein the baseband unit extracts GPS data from the selected ones of the intermediate frequency (IF) outputs and generates an output relating to the position of the SATPS receiver.
9. The configurable SATPS receiver of claim 2, wherein the plurality of RF inputs are selected from at least one of a group comprising: a frequency reference input, an automatic gain control input, a blanking input, and a jammer-to-noise (J/N) switch.
10. The configurable SATPS receiver of claim 8, wherein the intermediate frequency (IF) outputs are selected from at least one of a group comprising: in-phase (I) output, quadrature-phase (Q) output, I^2+Q^2 output, oscillator output, Intermediate Frequency (IF) output, an automatic gain control output, and other signal quality indicators.

11. The configurable SATPS receiver of claim 2, wherein the intermediate frequency (IF) outputs are fed directly into the baseband unit for 30 processing.
12. The configurable SATPS receiver of claim 2, wherein the intermediate frequency (IF) outputs are sent directly to a remote location.
13. The configurable SATPS receiver of claim 2, wherein the intermediate frequency (IF) outputs are directly utilized for parallel processing by a remote location and the basedband unit.
14. The configurable SATPS receiver of claim 1, wherein the plurality of possible outputs comprise a plurality of programmable outputs that can be enabled based on the particular receiver application.
15. The configurable SATPS receiver of claim 14, wherein the particular receiver application is determined based on current operating environment and/or user preferences.
16. The configurable SATPS receiver of claim 2, wherein the plurality of possible outputs are selected from at least one of a group comprising: a doppler output, a pre-processed information (IF) output, a delta pseudorange output, an integrated carrier phase output, a pseudorange output, a time output, a velocity output, and a position output.
17. The configurable SATPS receiver of claim 8, wherein the input paths comprise: at least one antenna adapted to receive RF inputs and supply the RF inputs to the RF unit.

18. The configurable SATPS receiver of claim 8, wherein the at least one antenna is a first antenna, and wherein the input paths further comprise: a *second* antenna adapted to selectively receive other RF signals based on the particular application.

19. The configurable SATPS receiver of claim 18, wherein other RF signals are selected from at least one of a group comprising: cellular system signals, local area network signals, Bluetooth signals, SMS signals, Wide Area Augmentation System (W AAS) signals, and beacon signals.

20. The configurable SATPS receiver of claim 1, wherein the particular SATPS receiver applications include at least one or a cellular telephone operating environment, an automobile operating environment, and a Personal Data Assistant (PDA) operating environment.

21. A generic SATPS receiver adapted to be programmed for use in selected ones of a plurality of SATPS applications, comprising:

a plurality of SATPS input paths; and

a plurality of possible outputs, wherein at least one of the plurality of possible outputs is activated based on requirements of a particular SATPS application.

22. The generic SATPS receiver of claim 21, wherein the particular generic SATPS receiver application is selected from at least one of the group comprising: a wireless communicator application, a laptop computer application, a location services application, a cellular telephone application, and a vehicle navigation application.

23. The generic SATPS receiver of claim 21, wherein selected ones of the plurality of the possible outputs are activated via software.
24. The generic SATPS receiver of claim 21, wherein selected ones of the plurality of the possible outputs are activated via hardware.
25. The generic SATPS receiver of claim 21, wherein selected ones of the plurality of the possible outputs are activated via firmware.
26. The generic SATPS receiver of claim 21, wherein the generic SATPS receiver is configurable for use with a Global Positioning System (GPS) satellite network.
27. A generic SATPS receiver adapted to be configured for use in any of a plurality of particular SATPS receiver applications, wherein the generic SATPS receiver includes a plurality of output paths and a plurality of possible outputs, wherein the input paths are enabled based on requirements of a particular SATPS receiver application.
28. A generic SATPS receiver according to claim 27, wherein the generic SATPS receiver includes a plurality of input paths and a plurality of possible outputs that are enabled based on a particular receiver application.
29. The generic SATPS receiver of claim 27, comprising:
a radio frequency (RF) unit that generates RF outputs based on the plurality of inputs; and

a baseband unit that extracts data from selected ones of the RF outputs and other inputs, wherein the baseband unit generates desired outputs utilized by the particular receiver application, and the desired outputs are selected from the plurality of possible outputs.

30. The generic SATPS receiver of claim 27, wherein the baseband unit extracts data from selected ones of the RF outputs and other inputs.

31. The generic SATPS receiver of claim 27, wherein the particular SATPS receiver application is selected from at least one of the group comprising: a wireless communicator application, a laptop computer application, a location services application, a cellular telephone application, and a vehicle navigation application.

32. The generic SATPS receiver of claim 27, wherein selected ones of the plurality of the possible outputs are activated via software.

33. The generic SATPS receiver of claim 27, wherein selected ones of the plurality of the possible outputs are activated via hardware.

34. The generic SATPS receiver of claim 27, wherein selected ones of the plurality of the possible outputs are activated via firmware.

35. The generic SATPS receiver of claim 27, wherein the generic SATPS receiver is configurable for use with a Global Positioning System (GPS) satellite network.

36. A generic SATPS receiver, comprising:
an input path for SATPS satellite signals;

at least one input path other than the input path for SATPS satellite signals;

an output path for outputting position; and

at least one additional output path, wherein signals on the at least one additional output path being returned to the input paths, and wherein a specific configuration of input paths and output paths used by a given SATPS receiver is selected based on testing of the input paths and the output paths.

37. The generic SATPS receiver of claim 36, wherein the testing of the input paths and the output paths identifies ones of the input paths and ones of the output paths that are inoperable.

38. The generic SATPS receiver of claim 37, wherein the given SATPS receiver is removed from consideration for use in a particular application when one of the input paths or output paths that is inoperable is one of the input paths or output paths that is needed for the particular application.

39. The generic SATPS receiver of claim 36, wherein the generic SATPS receiver is configurable for use with a Global Positioning System (GPS) satellite network.